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27 February-3 March 1995
Item 14 of the provisional agenda*

TECHNICAL COOPERATION IN STATISTICS

Note by the Secretariat

1. The Working Group on International Statistical Programmes and Coordination, at its seventeenth session, held in New York from 6 to 9 September 1994, requested the Statistical Division of the United Nations Secretariat (UNSTAT) to prepare, in consultation with the United Nations Population Fund (UNFPA) and the United Nations Development Programme (UNDP), a report on the state of funding for technical cooperation activities in statistics (see E/CN.3/1995/2, para. 64). Extensive discussions with both UNFPA and UNDP have already taken place on such subjects as the modalities of support and the volume of financial support. Because of the complexity of this matter, these discussions are not expected to be concluded until 1 February 1995.

2. UNSTAT will deliver an oral report to the Statistical Commission based in part on these consultations.

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TECHNICAL COOPERATION IN STATISTICS

Note by the Secretary-General

The Secretary-General has the honour to transmit to the Statistical Commission the report of Statistics Canada on management training and development in Statistics Canada (see annex). The report is transmitted to the Commission in accordance with a request of the Statistical Commission at its special session. 1/

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* E/CN.3/1995/1.

1/ See Official Records of the Economic and Social Council, 1994, Supplement No. 9 (E/1994/29), chap. I, sect. A.

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Annex

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I. DEFINITIONS AND PROBLEM

1. In this paper, the phrase "training and development" is referred to as "training" and is used in the broadest possible sense - as that set of activities that maintains and adds to human capital so that its performance is increased. Management training is a particular form of training - that which allows people to perform better in their current managerial position; that which allows people to make a better transition from non-managerial to managerial positions; that which allows people to perform better as managers over the long term, taking into account their current positions and the positions to which they may aspire in part as a result of training.

2. Training for management, training for managers, or any of the other forms in which this type of training is administered must result from an analysis of a concrete situation - its current structure and prospects. If not, this form of training will turn into an activity that is unbounded and purposeless. One important element of the analysis, once it is determined that some form of training is required, is to determine whether the training should be bought (by sending personnel to training centres administered in-house). Without these considerations, what follows is not very meaningful.

3. Management training in Statistics Canada was the consequence of an analysis of the agency's vulnerabilities carried out some seven or eight years ago. Chief among those vulnerabilities were two: a continuing erosion of the agency's budget was feared to be weakening irretrievably its infrastructure, and the age structure of the agency's senior management was feared to be precipitating large-scale retirement within its ranks and within a relatively short period. The answer to the first threat was to decide on a number of measures to protect the agency's capabilities even if its current programmes continued to be eroded. Those measures do not form the subject of this paper. The answer to the second was to promote greater mobility within the agency, thereby ensuring to the fullest extent a smooth succession to senior jobs. If there is a threat of loss of human capital, one evident response is to make the remaining capital more versatile and to increase its potential performance.

4. For purposes of this discussion, the management complement of Statistics Canada is of the order of 330, or, in other words, just under 7 per cent of the agency's staff. Of that complement, some 70 form the senior layer. The latter include divisional and branch heads as well as the Chief Statistician and his six immediate assistants. The former include section heads and assistants to division directors. The bunching of age in this group is such that, if the current propensity to retire does not change, more than half of the complement would leave between 1998 and 2003. For reasons that fall outside this discussion, the layer immediately below the current management complement is currently too small in size to support departures on such a scale.

5. The measures envisaged to forestall what could easily turn into a permanent weakening of Statistics Canada's capacity to administer itself effectively - a capacity that has earned the agency government-wide accolades - fall into two categories. The first consists in increasing versatility by measures to rotate key staff through different assignments with reasonable frequency. The second consists in ensuring that training in managerial practices and techniques is

administered on a broad basis. Neither set of measures is regarded as fixed. Both are still being reviewed for effectiveness and having their scope gradually expanded. In fact, experience has backed the view that it is best to put in place modest measures immediately, so long as they can be corrected and expanded, rather than putting in place a full system only once it is fully thought out.

II. BACKGROUND

6. The measures taken were determined by Statistics Canada's past and its institutional environment. The professional staff at Statistics Canada was at times recruited on the basis of minimal standards at a time when demand for professionally competent statisticians exceeded by a margin domestic supply. One other perverse consequence of this state of affairs was to encourage "vertical" careers conceived with little exposure to disciplines other than the ones for which people were originally recruited. Moreover, until recently, the agency could not boast of a structured training programme. Indeed, with two signal exceptions - training administered by mathematical statisticians for mathematical statisticians and training by systems analysts for systems analysts - training was virtually limited to a handful of courses, some faddish and others on generalities that concerned the Canadian public service at large.

7. Today, the agency prides itself of a much changed situation. Its current spending on training has tripled - from under 1 to just over 3 per cent of its annual budget is spent on classroom training. This includes training that is provided by Statistics Canada's instructors in Statistics Canada's Training Institute as well as training provided at each of the two local universities, some of which is jointly run by Statistics Canada and university staff instructors, and also training that is given either in other venues or by specialized consultants. In addition to formal training, development for management positions includes a number of policies that are mutually reinforcing and that help meet the two objectives of increased versatility and ability to ensure a smooth transition.

III. ADMINISTRATION

8. Like so many initiatives taken in Statistics Canada, the development of a training programme was entrusted to an internal "management committee". These committees are usually manned by divisional directors, but their secretary is somewhat more junior and their chairman is typically more senior. The management committee on training (and personnel development) has two novel features. Its chairman is not a senior officer drawn from the personnel community - in fact, he is in charge of one of the agency's three programme areas - and the director of personnel practices, which also include training, is the committee's secretary. In other words, while it is expected from the agency's personnel services to be accountable for the logistics of a training programme, the content, scope and overall thrust of such a programme is entirely in the hands of the supervisors of its direct beneficiaries. Training, like many other activities pursued by Statistics Canada, is driven by demand.

9. The Training Committee is made up of a dozen divisional heads and represents all areas of Statistics Canada. It meets once every two months, reviews progress, and opens up new matters for definition and eventual policy formulation. It has an inner body of three members who meet more often to ensure that Committee decisions are complied with and work requested by the Committee is completed on schedule. It also ensures that more difficult matters are dealt with by task forces which are asked to report directly to the Committee. It is in this environment that measures designed to train managers were devised.

IV. ROTATION

10. Rotation involves primarily divisional directors and their deputies. The latter are pooled and their rotation is regarded as a preparation for the rank above. Rotations take place at variable frequencies, but in the case of assistant directors, three-year assignments are regarded as the norm. The relation between assignments is sought to be a logical one rather than one dictated by the happenstance of vacancies. For example, an assignment in basic statistics is sought to be complemented by one in the national accounts; an assignment in one of the branches of social statistics by one in the census of population; and one in any programme area by one in either operations or marketing.

11. Rotations are not managed by specialized committees. Rather, the role is assumed by the most senior officers in the agency at one or several meetings presided over by the Chief Statistician. The merit of the procedure is that it is invested with a legitimacy and a finality that cannot be matched by decisions taken by any other committee within the agency. The occasion is also used as an opportunity to make senior managers look into the qualities and potential of their more junior staff.

12. There is no threat of compulsion associated with rotation. If assistant directors oppose their new assignment, nothing short of persuasion would be invoked to force them. But they do not do so largely because it has become part of institutional behaviour and more importantly because it is understood to be a necessary step in career advancement. This is but one of the profound behavioural changes that have taken place within the agency without the need for any legal or regulatory change but simply by building a proper system of incentives and deterrents.

V. GENERIC COMPETITIONS

13. Generic competition is a novelty in Statistics Canada, even though it is something well known in a number of other countries. Previously, the merit principle for public service appointments was managed in the following way: vacancies were publicly announced and candidates were interviewed or examined by a carefully selected board expected to select the best candidate and whose decision was subject to appeal. This process was managed for individual vacancies without regard - in the vast majority of cases - for other positions at the same level or requiring the same combination of skills and experience.

14. For a while now this pattern has been changing in favour of agency-wide generic competitions aimed at filling vacancies that fall within the same category and require a commonality of skills and experience. Four current examples will illustrate the application of the principle:

(a) Professional recruitment. The intake of new professionals (economists, sociologists, demographers, geographers, mathematicians and computer specialists) has been placed under central management. Instead of expecting some 100 managers to make individual decisions each year regarding their needs, an agency-wide committee forecasts future needs and engages in university recruitment at a time when it can attract the best and the brightest. So far, the quality of the recruits chosen in this fashion has been so high that there is no let-up in the demand for their services;

(b) Section chiefs. The agency is running a competition for some 15 or so vacancies at the first substantive management level - that of section chief. There are 250 candidates and a high performance is required of the successful ones in a general test, the purpose of which is to ensure that agency-wide issues and problems are known and understood by future middle managers;

(c) Assistant directors. For the past four years, all vacancies at the assistant director level have been pooled. The ranks have been kept filled by conducting periodic competitions. Qualified candidates are appointed to a pool administered centrally. Their first rotation is always outside their previous host organization;

(d) Division directors. Recently, the generic approach has been adopted to staff vacancies at the director level. This approach produced results deemed to be substantially better than those produced by the time-honoured system of individual competition.

VI. JUNIOR MANAGEMENT TRAINING

15. Management training is divided into two categories. Training for those who are managers and training for those who have not yet become managers but have opted for a career within the agency that will eventually lead to their taking on a position with managerial responsibilities. The latter type of training is administered, literally, as soon as professional employees are recruited into the agency. The former occurs after some 7 to 10 years of seniority.

16. The training that is administered as soon as professional grade personnel are admitted to the agency consists of a mixture of professional and managerial skills, the former being very explicit and the latter more subliminal. The idea and the practice were developed at the United States Bureau of the Census; the Canadian version is in part an adaptation to local conditions and in part a firmer recognition of the need to make future professionals as versatile as possible. The framework is a mini-survey (real, with actual sponsors external to the agency, and an identified need) which a group of 25 recruits have to take within a period of six weeks. During those six weeks, everything takes place: from questionnaire design, to knocking on doors to collect information, to systems design and support, to tabulation, to analysis until a final report is handed over. There is a role switch entailing that junior systems analysts may

find themselves collecting data, while junior mathematicians may be in charge of questionnaire design. But, at some point, all will be in charge of making sure that the survey resources are properly administered and that the resources given to them stretch out for the duration.

17. For their first two years, junior professionals are given a number of assignments - not longer than six to eight months each - in various parts of the organization, including its regional offices, one of which is some 6,000 kilometres to the west of Ottawa. These assignments also serve the purpose of broadening perspectives and increasing versatility. They also serve subliminally to emphasize that, notwithstanding the difference in content, there should be a commonality of approaches adopted by the distinct parts of the agency. This notion of commonality is a value that must be inculcated at the outset, much like confidentiality, data quality and the fostering of a service mentality.

VII. SENIOR MANAGEMENT TRAINING

18. After some six to eight years, the better of the recruits who have decided to pursue a career within Statistics Canada will have reached a level immediately below that of their first substantive supervisory job. As "section heads" they will be expected to look after a budget that might range from a smallish to a very sizeable sum; to manage a group of people - as many as 50 in some cases - and to be accountable for an operation, errors in which could result in considerable awkwardness for the agency. It is required from them that they act sensibly in money and personnel matters, that they keep themselves abreast of what is happening around them, that they use forward-looking indicators so as to run the sum of money entrusted to their unit competently, and that they relay information accurately from the bottom up and from the top down.

19. In Statistics Canada, these matters are mostly done by having future managers do them rather than by teaching them the formalities of personnel and financial management. Accordingly, there is only one course for middle managers and, even though it has traditionally consisted of three cycles of one week each per annum for each candidate, this course has very little formal management training. There are reasons for this. The Training Committee has not been of the view that the softer aspects of managerial know-how can be taught efficiently. In fact, the contents of the course for middle managers was recently overhauled and will henceforth be structured quite differently, although, if anything, there is increased emphasis on learning by doing.

20. Over a period of three to four months, course takers will be expected to wrestle with an agency problem and find a recommendable solution or, at least, a number of relevant options. Once these are found, the group of middle managers - after taking suitable direction from their seniors in the art of writing up and presenting a recommendation - will appear before the Policy Committee, Statistics Canada's seven-man executive body.

21. The purposes of this course are easy enough to discern. Managers are going to be involved in managerial problems and managerial problems are often difficult to demarcate in terms of the organizational unit for which the manager

is responsible. In fact, many managerial problems are agency-wide or, alternatively, are of a nature such that similar problems are bound to crop up elsewhere in the agency and might benefit from the same solutions. For this reason, the best form of training is to put the subjects in the same situation as their superiors and hope that collectively and with more time on their hands they will come up with solutions that are at least as good.

22. Experience shows that artificial conditions may be good on the odd occasion, particularly where time is short and there is no opportunity to make the situation realistic. But where there is time and plans can be put together well in advance of the actual happening, the more realistic the situation the greater the benefits to assessors who wish to determine whether, ultimately, the candidate for a managerial position has the stamina, interest and knowledge to take on a mantle of greater responsibility.

VIII. VERY SENIOR MANAGEMENT TRAINING

23. There is some formal training for divisional directors and above. It is about management but it is not administered by Statistics Canada nor is it specially designed for Statistics Canada. For this reason, no more details about it are given here. As noted earlier, there is a scheme of rotation for divisional directors designed to improve the performance of those who have the potential, will and experience to progress to positions of greater responsibility.

24. The scheme is administered by an expanded committee of senior managers consisting of the seven top managers, together with the members of the group immediately below (some 13). This committee meets once a year and reviews the past performance of the agency's 50 divisional directors - their revealed strengths and weaknesses, their achievements over and above what should be expected from them in the normal exercise of their duties and so on. At the same time, the committee examines opportunities for rotation and particularly those opportunities that might result in an increase in versatility sufficiently important to offset the disruption that such moves inevitably cause.

25. The same scheme exists for the level immediately above that of divisional directors - the 13 so-called directors-general. Their performance is reviewed in much the same way by the group of seven and the final question concerns their mobility and potential to grow through new assignments. The most recent examples are those of a rotation that took place last year. The director-general responsible for all household surveys was switched to the branch that includes statistics on international trade, prices, manufacturing etc. The previous incumbent was named head of all computing services; the director-general responsible for analytical studies was switched to the branch responsible for statistics on health and education and the pervious incumbent moved to take over household surveys. All these moves implied a complement to the experience amassed by the incumbents.

IX. UNDERLYING PHILOSOPHY AND GAPS

26. Statistics Canada does not consider that its efforts to develop a training programme have been crowned by ultimate success and that the results reflect an equilibrium between the possible and the attained. In fact, there are still many gaps, but there is also a framework that allows for systematic progress to be made. That framework is based on a number of very simple principles. For example, Statistics Canada will only administer those training programmes that are of direct benefit to the agency and where no one else is capable of administering them more effectively. Nor will Statistics Canada administer training in those areas that do not lend themselves directly to quantification (with a decreasing number of exceptions) even when they are directly linked to the subject at hand. For example, the agency will shy away from specific courses in "leadership" or in "management" but will stress such subjects as cost accounting and progress estimation and reporting. The former are considered matters that should be learned by doing.

27. The agency is conscious of the fact that so far its training programmes reflect an implicit assumption about the needs of professionals employed by Statistics Canada. For example, there is a concerted effort to impress recruits with the notion that enterprises are collective affairs and that management of those enterprises is as necessary a factor for success as a good understanding of survey methodology. Likewise, there is an effort to impart agency-wide values and concerns to deputy directors and to section heads. But there is nothing comparable for the years between graduation from a junior status to the time when incumbents express their intention to become middle managers. It is not obvious that this is the right policy, and over the next while, Statistics Canada's Training Committee will consider the wisdom of its current stance.

28. The agency's performance in critical areas, such as estimation of costs for cost-recovery work or time and resources required for major systems redevelopment, is still spotty. These are two areas where much more thought and training are required if there is going to be a significant improvement in performance. Better financial forecasting techniques and a deeper understanding of costs are essential to improve performance, and training in these matters will be imparted as soon as there is a sufficiently respectable body of knowledge ready to be imparted.

X. CONCLUSIONS

29. Statistics Canada's late deputy Chief Statistician and one of the past directors of the Statistical Division of the United Nations Secretariat - Simon Goldberg - was fond of saying that, in order to integrate statistics, it was necessary to first integrate statisticians. And in order to make statistics more comparable, it is of the essence that statisticians from all countries gain an understanding of the concerns, constraints, institutional frameworks and technical considerations that make their counterparts act the way they do. One way to foster such an understanding is by running formal training programmes that are open to colleagues from other countries. Statistics Canada's approach to training is precisely that and the intentions of the agency are to open its training programmes, and particularly those that have to do with management, to as many outsiders as it can accommodate.